REMARKS

The present amendment is respectfully submitted in response to the outstanding Office Action of August 13, 2001 on the above-identified application. Entry of the preceding amendment, and a reconsideration of the claims, as amended, are respectfully requested.

Turning to the Office Action Summary (Form PTO-326), claims 1 through 32 are pending in the application. In the action, all were rejected on the basis of the prior art, while claims 7 through 12 were rejected on formal grounds.

Referring to page 2 of the action, the drawings were objected to under 37 C.F.R. §1.83(a) for failure to show every feature of the invention specified in the claims. Specifically, the Examiner required that the limitations of claims 23 through 28 be shown in the drawings or the features set forth therein cancelled from the claims.

In response to this requirement, the Applicant respectfully submits new Figures 5 through 8 as a separate paper pursuant to 37 C.F.R. §1.121(d). Figure 5 shows the inventions claimed in claims 26 and 27, wherein the laminated structure is spirally wound onto the outer surface of an endless-loop base fabric. Figure 6 shows the invention claimed in claim 28, wherein the laminated structure is spirally wound onto the outer surface of

a papermaker's fabric produced by spirally winding a laminated strip. Figures 7 and 8 show the inventions claimed in claims 23, 24 and 25, wherein at least one additional layer of staple fiber material, applied either spirally or full-width, is attached to one of the inner and outer surfaces of the papermaker's fabric. Entry of Figures 5 through 8 into the application is respectfully requested; they contain no new matter.

Referring now to the preceding amendments to the specification, the Examiner will note that they are being submitted to provide the necessary references to the new Figures 5 through 8. No new matter is included in these amendments, and their entry is respectfully requested.

Claims 7 through 12 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. On page 2 of the action, the Examiner was kind enough to suggest how these rejections might be overcome, and her suggestion has been followed in the preceding amendment to claim 7. Entry of this amendment, which will also overcome the rejection of claims 8 through 12 which depend from claim 7, is respectfully requested.

Attached hereto as an Appendix to the present amendment are "marked-up" versions of the paragraphs in the specification

being amended and of claim 7. The traditional bracketing and underlining is used to indicate the changes being made.

Before turning to the rejections made on the basis of the prior art, the present invention is concerned with the production of a laminated papermaker's fabric in accordance with the teachings of U.S. Patent No. 5,360,656 to Rexfelt et al. As discussed on page 5 of the present specification, the provision of additional layers has heretofore been made at the expense of additional manufacturing steps which, in the long run, use up much of the time saved by manufacturing a base fabric according to the teachings of this patent. The present invention provides a means by which a laminated papermaker's fabric may be manufactured more efficiently from a previously laminated structure, in accordance with the teachings of the same patent. As such, the object of the present invention is to save time by manufacturing the subject papermaker's fabric more efficiently.

The laminated structure used to manufacture the laminated papermaker's fabric by spiral winding has a top layer and a bottom layer which are attached to one another in a sandwich-like fashion. Both the top layer and the bottom layer are of a common width, are in the form of strips and are laminated to one another in a transversely offset manner. As a consequence, a stepwise joint is formed between adjacent turns of the spirally wound laminated structure. The joint is said on page 10 of the

specification to improve the structural integrity and dimensional stability of the papermakers fabric, and is less likely to mark a paper web than one made along a single line, that is, one which is not stepwise.

Now, turning to the rejections made on the basis of the prior art, claims 1 through 32 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,268,076 to Best et al. and/or the previously mentioned U.S. Patent No. 5,360,656 to Rexfelt et al., each further in view of U.S. Patent No. 2,225,026 to Welsh.

While the primary references, Best et al. and Rexfelt et al., show similar subject matter, neither shows the production of a papermaker's fabric by spirally winding a laminated structure. To show what is lacking in the combined teachings of these primary references, the Examiner has cited the Welsh reference.

U.S. Patent No. 2,225,026 shows a method for making a rigid tube of cellulose or other materials. The tube is manufactured by spirally winding two plies of material which are offset transversely from one another, or from a single ply having thinned lateral edges. The purpose is to make a stronger joint between adjacent turns so that the tube will be rigid.

In the present case, however, the transversely offset laminated structure is used for efficiency, and to reduce the

marking of a paper web. The teachings of the Welsh reference have no relevance to either of these, and one of ordinary skill in the art of paper machine clothing would derive no insight into the problems being solved by the present invention by studying the Welsh reference. It is respectfully submitted, therefore that Welsh represents non-analogous art as being directed toward subject matter totally unrelated to that of the present invention, and toward the solution of entirely different problems. As is well known, rigidity is not a requirement in the field of paper machine clothing; rather, its direct opposite is more desirable. Further, the overlapping of the spiral turns of the laminated structure is not done for the sake of rigidity. Rather, it is done to reduce the marking of a paper web, and may have the incidental benefit of improving dimensional stability and structural integrity.

In view of the preceding discussion, the Examiner is respectfully requested to reconsider her rejection of claims 1 through 32, and to allow same at an early date.

Respectfully submitted,

John F. Gulbin

John F. Gulbin
Registration No. 33,180

(212) 687-6000

Pitney, Hardin, Kipp & Szuch LLP
711 Third Avenue
New York, NY 10017-4014

APPENDIX

1) Paragraph beginning at line 11 on page 11:

"Figure 3 is a cross section taken as indicated by line 3-3 in Figure 1; [and]

2) Paragraph beginning at line 13 on page 11:

"Figure 4 is a cross-sectional view of the laminated structure from which the present invention is manufactured[.]; and

3) Paragraph beginning at line 33 on page 17:

"For example, a laminated papermaker's fabric, incorporating papermaker's fabric 22 manufactured in the foregoing manner from laminated structure 16, may itself be manufactured by first mounting a base fabric 40 of any of the standard varieties described above about first and second rolls 12,14, and by then spirally winding a strip of laminated structure 16 thereonto to produce a layer in the form of papermaker's fabric 22 on top of the base fabric 40 in accordance with the procedure described above. A cross-sectional view taken transversely across such a laminated papermaker's fabric 42 is shown in Figure 5. Alternatively, or additionally, a further layer in the form of papermaker's fabric 22 may be manufactured by spirally winding a strip of laminated structure 16 onto that previously produced by spiral winding in accordance with the procedure described above. A cross-

sectional view taken transversely across such a laminated papermaker's fabric 44 is shown in Figure 6. Preferably, such a layer would be manufactured by spirally winding the strip of laminated structure 16 in a direction opposite to that in which it was wound to produce the previous layer, so that in one layer the laminated structure 16 would spiral in one direction, producing a right-handed spiral, while in the other layer the laminated structure 16 would spiral in the other direction, producing a left-handed spiral."

4) Paragraph beginning at line 22 on page 18:

"Moreover, a laminated papermaker's fabric, incorporating papermaker's fabric 22 manufactured in the above-described manner from laminated structure 16, and having the same appearance as the laminated papermaker's fabric 42 shown in Figure 5, may also be manufactured by slipping papermaker's fabric 22 over a base fabric of any of the standard varieties described above and having suitably matched dimensions."

5) Paragraph beginning at line 29 on page 18:

"In any event, whether the papermaker's fabric is laminated or comprises only one layer produced by spirally winding laminated structure 16, one or more layers of staple fiber material 48 may be applied to its outer surface, its inner surface, or to both of these surfaces, either in the form of a

strip spiralled thereonto as shown in Figure 7, or full-width, as shown in Figure 8, and driven thereinto by needling or hydroentangling. Where the papermaker's fabric has been laminated, individual fibers of the staple fiber material, driven through the overlying layers, are the primary means by which the layers are attached to one another. In any case, this additional batt improves the structural integrity of the papermaker's fabric and reduces the risk of sheet marking."

6) Amendment to claim 7:

7. (Amended) A method as claimed in claim 1 wherein said step of providing a laminated structure comprises the steps of:

providing [a] the bottom layer, said bottom layer being a base for said laminated structure;

providing [a] the top layer, said top layer being adapted to support a paper web in a paper machine;

forming a sandwich of said top and bottom layers, said bottom layer being transversely offset with respect to said top layer; and

attaching said top and bottom layers together to form said laminated structure.